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الأغذية والزراعة
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FAO REGIONAL CONFERENCE FOR THE NEAR EAST

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How to fight against Food Loss and Waste

Executive Summary

Food loss and waste (FLW) are a persistent challenge for Near East and North Africa (NENA) countries, with interrelated negative impacts on income and livelihoods, food security and nutrition, climate change and scarce natural resources. Quantitative and qualitative FLW in NENA countries are largely attributed to a variety of factors. These include poor and inadequate post-harvest transport, storage and processing capacity; lack of cold chain capacity, reliable power supply, good maintenance and management practices; inappropriate production, harvesting and handling practices; and poor purchase, handling, food preparation and disposal practices among food service providers and consumers. Other factors driving FLW in the region include poor organization, coordination and communication among food supply chain actors; inefficient marketing systems and market infrastructure; individual perceptions and lack of awareness; as well as sociocultural norms and traditions, including the generous social hospitality habits and celebrations.

The evolution of the socioeconomic contexts and national agrifood systems agendas and priorities in NENA countries has been reflected in FAO's guidance on FLW reduction. In previous sessions of the Regional Conference for the Near East, FAO Members have sought strategic and analytical guidance to address FLW. In 2014, a *Regional Strategic Framework Reducing Food Losses and Waste in the Near East & North Africa Region* was endorsed. It has served as a guide for policy and programmatic directions on FLW reduction since that time. The *Guidelines for action on food loss and waste reduction in the Near East and North Africa* is a framework for action that updates the *Regional Strategic Framework Reducing Food Losses and Waste in the Near East & North Africa Region* following the *Voluntary code of conduct for food loss and waste reduction*.

Food loss and waste reduction should be regarded as an entry point to support the transformation of agrifood systems to be more inclusive, efficient, sustainable and resilient to shocks and stressors. Therefore, the interventions to reduce FLW at national and regional level in NENA should adopt a holistic, integrated, systemic approach that stimulates innovation, research and development, finance and investment, and multistakeholder and multidisciplinary engagement within agrifood systems and

This and other documents can be consulted at www.fao.org

across

sectors.

Suggested action by the Regional Conference

The Regional Conference is:

- a. invited to acknowledge the importance of food loss and waste reduction for the transformation of agrifood systems in the region;
- b. requested to integrate food loss and waste in agrifood systems pathways and strategies on food security, climate change and investment;
- c. encouraged to endorse the *Guidelines for action on food loss and waste reduction in the Near East and North Africa*, as a tool for development of national food loss and waste strategies and action plans.

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I. Introduction

1. Food Loss and Waste (FLW) refers to the decrease in the quantity or quality of food along the supply chain (FAO, 2019)¹. It has negative impacts on economic growth, food security and nutrition, and the environment.

2. FLW is a manifestation of the unsustainability and inefficiency of agrifood systems, and the reduction of FLW is an important entry point for transforming Near East and North Africa (NENA) agrifood systems to make them more sustainable, resilient and inclusive, and more capable of delivering nutritious food, ensuring food security and fostering economic prosperity for all. Interventions to reduce FLW can support climate change adaptation and mitigation actions, and lower the pressure on scarce water and arable land resources in the region. FLW reduction can also promote inclusive economic growth, by preserving and adding value to agrifood products, which leads to the generation of decent jobs, income and wages for agrifood system actors, including women and youth, small-scale producers and small and medium enterprises (SMEs).

3. FLW reduction is connected to many of the sustainable development challenges facing NENA countries and it can help accelerate progress towards achieving the Sustainable Development Goals (SDGs) in the region. The opportunity that FLW reduction presents for sustainable development is engrained in the 2030 Agenda for Sustainable Development and SDG 12, Target 12.3, reflecting a recognition of the need to address FLW in the context of sustainable agrifood system priorities. Improvements to agrifood systems that reduce FLW can contribute to many SDGs; namely, SDG1, SDG 2, SDG 6, SDG 8, SDG 11, SDG 12, SDG 13 and SDG 14. On the other hand, progress on many other SDGs can expedite FLW reduction (SDG 5, SDG 7, SDG 9 and SDG 17). Recent geopolitical crises, health emergencies and the impacts of climate change have drawn attention to the vulnerability of NENA countries to disruptions of global supply chains, and further manifested the importance of efficient and sustainable production and consumption practices to reduce FLW.

4. According to the latest report (FAO et al, 2023)², around 36.6 percent of the population in the Near East and North Africa, equivalent to 170.1 million people, is in moderate or severe food insecurity, while 59.8 million or 12.9 percent of the population is undernourished. There is inadequate capacity to produce enough food to meet the rapid increase in food demand, in particular due to the scarcity of natural resources. Over 360 million hectares of land and 42 km³/year of water are used to produce food that is ultimately lost or wasted in the NENA region (FAO, 2013)³. The natural resource scarcity is further exacerbated by the negative impact of climate change. Land- and water-use efficiency can be improved by targeted measures to reduce food loss and waste in the region.

5. In previous sessions of the Regional Conference for the Near East (NERC), as well as in other official fora at global and national levels, NENA member countries have requested guidance to support the development of national strategies, policies and legislation enabling FLW reduction. The FAO Regional Office for the Near East and North Africa (FAO RNE) is committed to supporting Members in tackling FLW as part of a holistic, integrated and systemic approach to agrifood systems transformation. This document will focus on the nature and evolution of FAO's demand-driven guidance on FLW reduction in the region, and provide recommendations to fight against FLW, including through the application of the *Guidelines for action on food loss and waste reduction in the Near East and North Africa*.

II. Status of food Losses and waste in agrifood systems in the region

6. The 2011 FAO report *Global food losses and food waste*⁴ casts new light on the problem of FLW. It is estimated that one-third of all food produced globally for human consumption is lost or wasted. Since then, FAO, partner institutions and Members have garnered a wealth of experience,

¹ FAO. 2019. *The State of Food and Agriculture 2019. Moving forward on food loss and waste reduction*. Rome. Licence: CC BY-NC-SA 3.0 IGO.

² FAO, IFAD, UNICEF, WFP, WHO & UNESCWA. 2023. *Near East and North Africa -- Regional Overview of Food Security and Nutrition 2023: Statistics and trends*. Cairo. <https://doi.org/10.4060/cc8039en>

³ FAO. 2013. *Food wastage footprint - Impacts on natural resources*. <https://www.fao.org/3/i3347e/i3347e.pdf>

⁴ FAO. 2011. *Global food losses and food waste – Extent, causes and prevention*. Rome. <https://www.fao.org/3/i2697e/i2697e.pdf>

lessons, analyses and information on FLW. Numerous studies and technical dialogues have investigated FLW causes, impacts and solutions to inform FLW reduction decisions and policy and strategy efforts. The 2011 report also provided the basis for assessments of the environmental footprint and economic and social impacts of FLW, helping to spur greater global awareness and momentum for FLW action in connection with agrifood system sustainability and resilience to climate change impact.

7. It is now recognized that FLW is a multistakeholder, multidisciplinary, multisectoral problem that cannot be viewed in isolation from how agrifood systems function and develop. While many of the causes of FLW are technological in nature, efforts to reduce FLW must address underlying systemic barriers – poorly functioning markets, lack of finance, weak capacities, poor coordination among actors, etc. – which require commensurate policies, investments, partnerships, and institutional and regulatory frameworks.

8. In the NENA region, each year over 14.8 percent of the food produced is lost from post-harvest up to, but not including, the retail stage⁵. Significant levels of food waste are also reported in the region. Indicative of this, the level of the annual household food waste reported in the region ranges from 76 kg/capita in Libya (extrapolated) to 105 kg/capita in Saudi Arabia and Lebanon (measured), 120 kg/capita in Iraq (average of measured data), and 132 kg/capita in Bahrain (measured)⁶.

9. Quantitative and qualitative FLW among NENA countries are largely attributed to the following⁷:

- a. poor and inadequate post-harvest transport, storage and processing capacity;
- b. lack of cold chain capacity, reliable power supply, good maintenance and management practices;
- c. inappropriate production, harvesting and handling practices;
- d. poor purchase, handling, food preparation and disposal practices among food service providers and consumers;
- e. poor organization, coordination and communication among food supply chain actors;
- f. inefficient marketing systems and market infrastructure, including for recovering and repurposing FLW; and
- g. Social cultural practices including hospitality habits and celebrations, consumers' perceptions and lack of awareness.

10. Despite efforts to address FLW reduction as a priority action for agrifood system transformation, several challenges persist that prevent effective action in the region. Data scarcity is often cited as a limiting factor; the lack of reliable, consistent data on FLW is an obstacle to developing effective context-specific, evidence-based FLW reduction strategies and policies. A few NENA countries have taken steps towards more systematic data collection on FLW, but in most cases, there are only scattered studies covering certain agrifood value chains. Nevertheless, building a strong evidence base is essential to guide decision-making as well as contribute to the monitoring of SDG 12.3.1. However, there is a lack of regional knowledge and information exchange, which, if addressed, can help fill the data gap among NENA countries that share common agrifood system characteristics and challenges related to FLW.

11. Another key challenge is the lack of a conducive environment that encourages private sector leadership and investment in reducing FLW and adding value to agrifood products. This is caused by inadequate public investments in infrastructure and services aligned with agrifood systems strategies; lack of awareness of the magnitude and consequences of FLW; lack of knowledge, skills, and capacity for informed and targeted policy-making; a weak regulatory framework; and absence of market and fiscal incentives.

⁵ See <https://www.fao.org/sustainable-development-goals-data-portal/data/indicators/1231-global-food-losses/en>

⁶ UNEP. 2021. *Food Waste Index Report 2021*. Nairobi, UNEP. <https://www.unep.org/resources/report/unep-food-waste-index>

⁷ FAO. 2023. *Guidelines for action on food loss and waste reduction in the Near East and North Africa*. Cairo. <https://doi.org/10.4060/cc7330en>

12. These current challenges point to the need for a holistic, integrated and systemic approach to address the gaps that have prevented effective FLW reduction thus far. FLW reduction strategies and action plans anchored to an agrifood systems policy framework can stimulate innovation, research and development, finance and investment, and the multistakeholder and multidisciplinary engagement for evidence-based FLW actions and solutions.

13. Putting this systemic approach into practice was at the heart of the request from the 26th Session of the Committee on Agriculture (COAG) asking FAO to take the lead in developing the *Voluntary Code of Conduct for Food Loss and Waste Reduction (CoC)*⁸. The CoC is an international instrument that presents a framework of actions and guiding principles that should be followed to effectively reduce FLW while promoting more efficient, inclusive, resilient and sustainable agrifood systems and the achievement of the SDGs. At its core, the CoC mainstreams an agrifood-systems approach and links FLW reduction to broader issues of sustainable production and consumption, with a framework to guide the efforts of all stakeholders in taking action to reduce FLW, putting governments in the driving seat to steer and accelerate these efforts.

14. As an overarching global framework, the CoC needs to be adapted to be made relevant and applicable to national or regional contexts. A regionally tailored framework for action on FLW can help countries in different regions to implement the CoC, while supporting regional policy coordination, the exchange of knowledge and experiences, advocacy and awareness-raising and engagement with the broad spectrum of agrifood system stakeholders.

15. For the NENA region, the *Guidelines for action on food loss and waste reduction in the Near East and North Africa* (hereinafter referred to as *Guidelines for action*) are meant to be an implementation tool for the CoC. The *Guidelines for action* build on and update the *Regional Strategic Framework Reducing Food Losses and Waste in the Near East & North Africa region*, following the CoC as a guiding framework in line with the 2030 Agenda for Sustainable Development and national agrifood system objectives. The intention of the *Guidelines for action* is to provide NENA countries with a basis to implement the CoC by developing an operational, multisectoral national FLW reduction strategy that addresses the underlying drivers of FLW and sets clear actions and targets. Governments are encouraged to endorse these *Guidelines for action*, and lead in facilitating the development of a national strategy and action plan, and from the outset, envisage a participatory process that maximizes the ownership and engagement of all relevant actors.

III. Priority needs and core requirements to fight food loss and waste, and examples of interventions in the region

16. FLW reduction can be a powerful means to enhance the ability of the NENA region's predominantly small-scale family farmers and agribusiness SMEs to adapt to the impact of climate and water shocks and protect livelihoods. The guidance provided to NENA countries for FLW reduction must, therefore, make this connection clear and align with the climate action agendas and national pathways to improve youth inclusion and gender empowerment. Addressing climate resilience is a key driver for sustainability, particularly in the context of the NENA region, which is one of the most vulnerable in the world to, and is already experiencing the effects of, climate change.

17. Many NENA countries view FLW reduction as a means to strengthen the functioning of agrifood systems and achieve food and nutrition security. Countries such as Jordan, Palestine, Saudi Arabia, and the United Arab Emirates have set strategic objectives for FLW reduction in alignment with their national agrifood system, food security and/or sustainable development objectives. The United Nations Food Systems Summit (UNFSS) in 2021 further raised the profile of FLW reduction as an effective means for agrifood systems transformation and progress on multiple SDGs. Many NENA countries have internalized FLW in their food systems national pathways that emerged from the Summit. Among the ten NENA countries that developed national pathways, eight set specific actions and measures to address FLW reduction, namely Algeria, Egypt, Jordan, Kuwait, Oman, the Sudan, United Arab Emirates and Yemen. Among the countries without national pathways, several, namely Iraq, Morocco, Saudi Arabia and Tunisia, dedicated UNFSS national dialogues to FLW reduction. Effective

⁸ FAO. 2022. *Voluntary Code of Conduct for Food Loss and Waste Reduction*. Rome.
<https://doi.org/10.4060/cb9433en>

FLW reduction requires multistakeholder and multidisciplinary collaboration to develop a common vision and commitment and effective policies to tackle FLW. Collaboration is especially important considering that responsibility for FLW reduction lies with many different stakeholders, ranging from government ministries, regulatory bodies and food control authorities, research and academia, the private sector and civil society, with actors across the food value chain ultimately responsible through their direct actions. Governments across the region are aware of the challenge of FLW and the interrelated negative impacts on income and livelihoods, food security and nutrition, climate change and scarce natural resources. Many have taken steps toward recognizing the issue of FLW, advocating for prevention and reduction, and measuring FLW to inform solutions. They have also sought FAO guidance in the process, requesting analytical and strategy support at 31st NERC 31, in 2012, and at NERC 32, in 2014, where the *Regional strategic framework for food loss and waste reduction* was endorsed. The *Regional Strategic Framework Reducing Food Losses and Waste in the Near East & North Africa region* has served as a guide for policy and programmatic directions on FLW reduction in NENA over the last decade.

18. Since 2014, the socioeconomic context and the national agrifood systems agendas and priorities in many NENA countries have evolved. This calls for a revision of the strategic guidance provided for FLW reduction. Furthermore, Members across the world, including those in NENA, have requested guidance on the application of the CoC in their contexts.

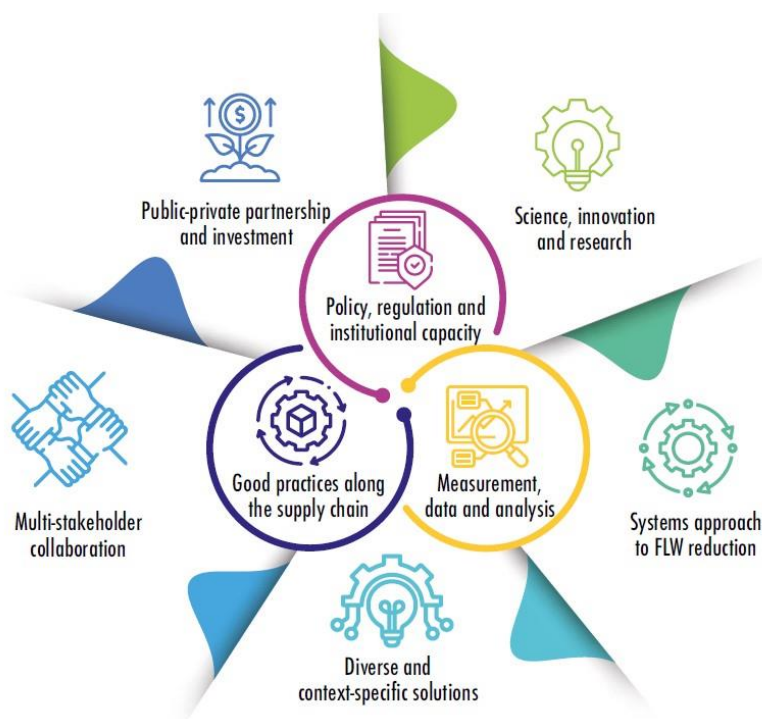
19. The *Guidelines for action* emerges from Members' requests for strategic support on FLW reduction and the need for regionally tailored and relevant guidance. As such, it supersedes the *Regional Strategic Framework Reducing Food Losses and Waste in the Near East & North Africa region* whose applicable timeframe ends in 2024.

20. Following the evolving national and regional agendas and priorities for agrifood systems in NENA, the *Guidelines for action* is an important tool for bringing greater alignment between FLW reduction and the transformation of agrifood systems, facilitating joint action, harmonizing approaches in the region and speeding up progress towards achieving SDG 12.3 and other SDGs. The *Guidelines for action* will equally serve as a tool for FAO RNE to act more effectively upon its firm commitment to supporting Members in NENA to tackle FLW.

21. In order to ensure that the *Guidelines for action* is inclusive, action- and impact-oriented and responds to the challenges and needs of the countries in the region, its formulation was informed by policymaker and multistakeholder consultations. These consultations helped to align FLW reduction activities with national agendas related to climate action, resource efficiency and strengthening of resilience against the impacts of crisis and risks, especially for the livelihoods of vulnerable groups. The *Guidelines for action* proposes five action enablers that facilitate an integrated and participatory approach to developing policies leading to FLW reduction actions (see Figure 1).

22. As indicated in Figure 1, the five enablers are: an agrifood system approach; diverse and context-specific solutions; multistakeholder collaboration; responsible investment; and science, technology and research. These enablers form the basis of the theory of change for effective FLW reduction and allow for a systemic and sustainable approach to putting into place the required actions, namely: strengthening policy, institutional and regulatory frameworks; increasing efforts to measure, assess, and monitor FLW and reduction solutions; and, promoting good practices along the supply chain among all actors.

Figure 1: A framework of action for FLW reduction in the NENA region



23. Recognizing the importance of knowledge and experience exchange, advocacy and awareness-raising, and engagement with a broad spectrum of stakeholders to amplify FLW reduction efforts among NENA countries, FAO RNE has launched a regional FLW network anchored in FAO's global technical platform on the measurement and reduction of food Loss and waste⁹. The network serves as a technical hub for sharing knowledge and good practice on FLW reduction in NENA and complements the efforts of FAO RNE, Members and partners to take effective action in terms of policy and strategy, data and measurement, and promoting good practices. The network is particularly important in the context of NENA where data and information on FLW reduction solutions and actions are lacking. The network welcomes contributions from all interested stakeholders willing to share news, events, publications, projects or any other resources addressing FLW reduction in the NENA region.

IV. Conclusions and Recommendations

24. In conclusion, the interventions to reduce FLW in NENA need to be tailored to the context and diversities in the region and respond to the priorities of multiple stakeholders in the region. Practical steps provided through the *Guidelines for action on food loss and waste reduction in the Near East and North Africa* region can support NENA countries with developing national FLW reduction strategies that address the underlying drivers of FLW and set clear actions and targets. Governments are encouraged to lead facilitation of the development of holistic national strategies and action plans, and from the outset, envisage a participatory process that maximizes the ownership of solutions and engagement of all relevant actors. For the actions to be truly impactful and transformative, governments need to mobilize the stakeholders, resources, knowledge and expertise, and facilitate an integrated and participatory approach to developing policies that are conducive to FLW reduction. The design of the policies, actions and intervention for FLW reduction need to follow an intersectorial systems approach that connects the broader economic and market systems, ecological systems, energy systems, social systems and health systems to agrifood systems and FLW therein.

25. The recommendations for action to reduce FLW respond to the priorities and needs expressed by NENA countries and include:

⁹ <https://www.fao.org/platform-food-loss-waste/regions/neareast/en>

- a. strengthening policy, regulatory and institutional frameworks that facilitate coordination and cooperation among stakeholders. Effective FLW reduction requires multistakeholder and multidisciplinary collaboration, to develop a common vision and commitment, and effective policies to tackle FLW.
- b. measuring, assessing and monitoring FLW to develop the evidence base to inform policy and to show the impact of the best practice by agrifood system actors, and importantly to inform investments and finance.
- c. addressing capacity development along the entire supply chain from production to processing, distribution, consumption and waste disposal, promoting and raising awareness on best practices and incentivizing their application and scale-up by all actors.